ABSTRACT

Packet routing via payload inspection at routers in a core of a distributed network for use in distributing content according to quality of service guarantees. Packets contain subjects and attributes in addition to routing information. The subjects correspond with

5 particular types of content for subscriptions, and the attributes encapsulate the data or content. The subscriptions are associated with particular quality of service guarantees or levels of service. The routers store filters corresponding with subscriptions to content. Upon receiving a packet, a router inspects the payload section of the packet containing the attributes in order to retrieve the attributes and match them to the filters for the

10 subscriptions. If the attributes satisfies a filter, the packet is routed to the next link in accordance with the quality of service guarantee associated with that filter. If the attributes do not satisfy any of the filters injected to and stored at the router, the router discards the packet. These routing decisions are distributed among routers in the network core.

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